CLAIMS

1. An Eolic Marine Electrical Generatorin abbreviated to " GEEM ", to generate mechanical energy or rotary movement, utilizing the impulse and force of water or wind and transform its mechanical energy into electrical energy by existing conventional means, characterized by :

- Fixed structure
- Rotary Structure
- Unidirecional Rotary Movement
- Rotary Shaft
- Panel Framework
- Self-Regulated panel which closed or opened to confront or pass water or wind by the effect of:
  - Oscillatory vanes
  - Oscillatory vanes movements
  - Vane shafts or spindles
  - Vanes oscillation stops
  - Vane aligned or regulator section
  - Vane bearing housing pipe
  - Vane bearing housing block
  - Rotary movement transmission shaft
  - Rotary shaft and transmission system brake
  - Fixed, radial eolic structure
  - Fixed diametrical eolic structure
  - Fixed eolic structure with static shaft

- Marine or river fixed structure
- Marine or river rotary structure
- River or marine fixed super structure
- Divided rotary shaft
- Multiple eolic generator
- Additional electrical booster
- Additional impulse plate
- Eolic and marine compound generator

2. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by : An Eolic rigid and static structure on land, formed by one or more columns and trusses of steel, parallel to each other, or by a vertical static fixed shaft, balanced with beams or turnbuckles that provide support for a vertical rotary shaft, and beneath this an electrical generation room; and if a river or marine structure, submerged in water, but removable for installation and maintenance, by means of rails fixed to land or floating, within another super fixed structure, that provides support to a horizontal rotary shaft above which is an electrical generation room.

3. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by: being formed by a rotary shaft or cylinder that revolves on the fixed center shaft at the axis of the structure, by the booster action of water or wind, against four or more divided panels, self-regulating, divided into oscillatory vanes, which first provide resistance against the natural force, generating a circular movement and then allowing the water or wind to pass freely by, by reason of oscillation regulation stops, that

together create a unidirectional rotary movement, independent of the flow direction of water or wind

4. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by creating a unidirectional rotary movement, independent of the direction of the vector impulse of water or wind, programmable in the direction of rotation at will, by the oscillating property of the vanes in relation to the rotary shaft and the axis of the panels, which determines a circular movement of the rotary shaft, either clockwise or anti-clockwise.

5. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by a ROTARY SHAFT, and Rotary Structure, having a cylindrical metal tube, complete or in sections according to the number of tiers of panels foreseen, with bearings at each end, installed on the center shaft of the fixed structure, having transmission pinions or pulleys on the end, and which also serves to support the panel frames and turns from the final effect of the action of water or wind, collecting the power impulses from the water or wind and moving to convert them into mechanical rotating energy which is transmitted to the driving shaft of a conventional electric generator.

6. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the panel frames having structural trusses or metal pipe sections of standard or aerodynamic design, welded or bolted at 90° to the rotary shaft, forming panel frames in dihedral or radial angles, structured and braced in the event of multiple or very large units in the axis of which oscillatory or self-regulating vanes are installed.

7. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the self-regulating vanes, having a flat surface defined by the panel frame and the rotary shaft, divided into equal parts called "vanes", with the property of oscillating

8. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the oscillatory vanes dividing the panel frame into rectangular divisions, and manufactured of molded plates having a Z-shape lengthwise with structural bends at both ends, made of light and strong material such as : aluminum, laminated steel, stainless steel or reinforced glass fiber.

9. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the oscillatory movement of vanes having an automatic self-regulating feature of the vanes related to direction of water or wind flow and the rotating position of the panel frame, which action is repeated after every 360° revolution. Of the panel.

10. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the shafts or spindles for the vanes having steel bars or other material turned to be fitted to interior bearings installed in panel frame or on the edge of the vane, fitted by clamps or molded adjustment plates, with bolts or threaded screws, removable for maintenance, and shafts that will enable the vanes to oscillate

11. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the oscillation stop for the vanes, welded or bolted to the panel

frames, and project from it to the turning space of each vane and limits its oscillation from 0°, when it is aligned with the axis of the panel frame at the initial point, to a maximum of 90° in its perpendicular position at the end of its oscillating movement.

12. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the aligning or regulator section for the vanes being a light round rod of steel, fiber or other material installed at the outside edge opposite to the spindle at one end of the vane, held by fixed supports in the from of a shaft, with adjustment or revolving nuts in the from of a bar with washers : joins at equal distances between each vane of each panel, keeping them in a uniform oscillating position, closing or opening them simultaneously, avoiding disagreement or mis-timing in each position of the complete rotary movement and limiting the oscillation of the vanes to 90° from the axis of the panel frame.

13. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the vane pipe bearing housing, having a cylindrical pipe machined internally to fit a bearing into which the vane shaft or spindle is fitted and located on the longitudinal edge of, and at the two ends of the vane, in semi-circular moldings fitted with a cap and bolted to the vane in such a way as to be removable for change or maintenance.

14. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the bearing housing block for the vane having two forms : a rectangular block machined in the center to fir a bearing for the vane spindle and a block

with a semi-circular groove through the center with a diameter equal to the vane spindle diameter.

15. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the rotary transmission shaft which is a cylindrical bar fitted with a set of pinions or pulleys transmitting the rotary movement, in the eolic model, directly to the input shaft of the speed change gearbox through a 90° drive with the rotary shaft, and in the case of the river or marine model, transmitting the circular movement to the surface, to the input shaft of the speed change gearbox.

16. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the brake of rotary shaft and transmission system being a hydraulic or mechanical brake applied to the rotary shaft in the eolic model, between the lower bearing and the pinions or pulleys, to immobilize the system, for maintenance and to be activated from the electric generation room in the eolic generator and in the river or marine generator, in the vertical rotary transmission shaft, before the speed change gearbox, which likewise is activated from the electric generation room.

17. An Eolic Marine Electrical Generator abbreviated to "GEEM", in accordance with claim 1, characterized by the fixed radial eolic structure having one or more columns in the circular external area of the system, supporting radial trusses having the generator shaft at its central point, which contains the upper rotary shaft bearing, defining, by means of a roof in the lower section, the electric generation room , and containing at its central point or axis, the lower rotary shaft bearing, occupying reduced space of a quarter circle of the space described by the system or less, as the support area. One of the upper trusses includes a rail for the displacement by cables and pulleys of a small basket suspended from

that girders for assembly and maintenance of the vanes in the case of very large models or those elevated high above ground level.

18. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the fixed diametric eolic structure having two or more installed columns outside the circular area of the system, with a truss of 180° and one or more perpendicular to it, supporting at its central point, a small basket with vertical or horizontal movement for installation or maintenance operated by cables and pulleys to cover the whole area of the panel.

19. An Eolic Marine Electrical Generator abbreviated to "GEEM ", in accordance with claim 1, characterized by the fixed eolic structure with a static shaft having a central cylindrical shaft, static and fixed, anchored to the center or axis of the system, above the generating room, around which the panels turn, the divided rotary shaft, and the pinion or pulley of the rotary transmission system being installed in four or more sections, corresponding to each panel fitted on top of each other by flanges and the panel brake having two forms.

20. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by the marine or river fixed structure having a platform, or anchored to land, the vertical segments will be submerged in the water being removable to the surface by means of vertical rails in the super fixed structure floating or anchored to land , that contain the points of support of the rotary structure, that provide support to the rotary shaft, the gear boxes, its rotary shaft bearings and finally to the rotary shaft, the panels and vanes

21. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by a marine or river rotary structure having a stainless metal cylindrical shaft, which installed in the bearings of the fixed marine or river structure, will contain the panel frames and the vanes, constructed of stainless steel, material resistant to the force of water, the waves or marine currents receiving the impulse of the water through the panels and converting the energy into rotary movement which is transmitted through pinions on the shaft to the transmission shaft on the surface.

22. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized by reinforced concrete blocks or steel columns submerged , suspended from floating platforms parallel to each other or solidly anchored to the ground, with deep and solid foundations to avoid erosion by river water and waves or marine currents, containing rails for moving the fixed river or removable marine structure and in the case of the "GEEM" systems, anchored to ground supporting the platform, power house or generating room, stores, transmission pylons and other necessary construction elements.

23. An Eolic Marine Electrical Generator abbreviated to " GEEM ", in accordance with claim 1, characterized bya rotary shaft made up of four or more metal sections corresponding to each panel, with bearings at its upper and lower ends, and joined by bolted flanges, makes up a divided rotary shaft having two forms determined by the type of static fixed shaft:

1. When the fixed static shaft is made of circular pipes of standard diameter with bearings installed directly on the machined seats of the pipes and adjusted for the rotary shaft divided between the number of panels.
2. When the fixed static shaft is made with large diameter pipes forming interior ducts for human passage, with rolled and welded plates, in which case angular tracks are added in the form of rings over the fixed static tubular shaft for the bearings of the rotary system. In this case the bearings are installed in the initial end of the panel frames and will be proportional to them.

24. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by a set of panels superimposed and placed vertically over each other in order to increase the impulse or impounding area , more panels being gained on the same rotary shaft by increasing the bearings and increasing the length of the panels, with horizontal trusses designed and constructed to the limiting stress of the materials used, thus obtaining multiple gigantic panels, for which radial ties will be used between panels, and diagonal turnbuckles against vertical deflection, thus sub-dividing the frames into sections or structural nodes with their corresponding struts or cable ties on the side opposite the vane oscillation area.

25. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by a vertical rotary cylinder installed at the end of a solid fixed point or a truss which exceeds the radius of an Eolic GEEM for the lower section of the panels and which by rubbing tangentially on a plate, with a circular form equal in radius to the radius of the panels and which on turning , will give an impulse in addition to the force of the wind to increase the efficiency of the system. The speed of the rotating cylinder shall

be inversely proportional to the wind speed and will be regulated by an electronic speed controller.

26. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by A metal plate or other solid cast material with a curve of the same radius generated by an Eolic GEEM, with slight bevels, formed from a vertically convex plate, installed on springs supported on horizontal shafts and which absorb the expansion of the panel frame due to heat, and receive the impact of the additional impulse adding a rotary force to the panel by the lever effect directed to the rotary shaft of the system.

27. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by two or more eolic or marine generators installed side by side in such a way as to add the partial power of their rotary shafts, through pinionms or pulleys and a new common horizontal rotary shaft or to referential gearbox in the following way:

The Compound Eolic Generator , by the construction of two or more generators, the rotary shafts of which run at 90° to a new horizontal rotary shaft, which adds the power of the other generators thus doubling or tripling the total power, enabling the use of high capacity electrical generators.

28. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by an eolic generator installed on wheeled vehicles, such as automobiles designed for the self-supply of electrical energy, and create a an electric automobile with an eolic generator on its roof in such a way that wind force at medium or

high velocity will generate sufficient energy to move the vehicle especially on long distance roads. On top of trains on the roofs of coaches which will add the partial energy production and store in a central accumulator to activate a partial or total impulse motor, thus eliminating or reducing the consumption of fossil fuels or petroleum.

29. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with cla characterized by an eolic generator installed on a normal type boat or catamaran with a large covering surface or large diameter roof or passenger cabin and bridge in such a way as to provide electrical energy to partially or completely move the boat

30. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by an eolic generator installed in an airship or dirigible below the gas envelope and above the crew and passenger cabin in such a way as to provide energy to partially or completely move the aircraft.

31. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by two eolic generators installed in parallel in the poop deck section, in an opposite rotating position, with reception of the wind impulse by the outside section and return from the panels to the zero position to the inside, in a ship of similar design to a disc slightly sharpened towards the prow, with terminals aerodynamic, engine room, and electricity generation in the upper part and the crew in the lower part, the eolic generator being in the central part of the ship, which previously had been impulsed at a cruising velocity by additional reactors or other means.

32. An Eolic Marine Electrical Generator abbreviated to" GEEM ", in accordance with claim 1, characterized by an Eolic generator installed in an orbital craft with rotating panels for the purpose of an electrical charge similar to the solar wind in such a way that by electrical repulsion, a rotary movement is generated only from the GEEM generator or for the whole craft, as in a craft of cylindrical form with panels installed around its exterior with the panels turning about the craft or the whole craft turning with periodic exposure of the craft to solar radiation, probably very useful for the crew because of the heating effect or for crops or scientific experiments on board.